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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VAN DOREN, BETH	
ART UNIT	**PAPER NUMBER**
3623	

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/074,839	MCCLURE, NEIL	
	Examiner	Art Unit	
	Beth Van Doren	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/21/06 has been entered.

2. The following is a non-final office action in response to communications received 08/21/06. Claims 1, 23, and 43 have been amended. Claims 44-46 have been added.

Response to Amendment

3. Applicant's amendments to claims 1, 24, and 43 are sufficient to overcome the 35 USC § 112, second paragraph, rejections of claims 1-43 set forth in the previous office action.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Openshaw, II et al. (U.S. 2002/0107724) in view of Miller et al. ("The Impact of Candidate name order on Election Outcomes").

As per claim 1, Openshaw, II et al. teaches an electronic voting system comprising:

a memory storage device (See figure 4) containing

ballot information including a plurality of ballot options in association with a contest (See figure 4, paragraphs 0019-20, 0033-6, 0041, wherein ballot information is stored by the system, including a plurality of valid, random ballot options);

a voting station (See figure 2, paragraph 0018) including

an electronically configurable ballot information presentation device operable for presenting the ballot options in a selected order during a first voting session (See figure 4, paragraphs 0019-20, 0033-6, 0041, wherein the ballot is presented in a selected order) and

a voter input device operable for permitting voter directed ballot data entry to produce a cast ballot responsively to the ballot information presented by the ballot information presentation device (See figure 3, paragraphs 0022, 0026, 0065, wherein the voter makes selections and casts the ballot); and

a ballot rotation engine operable to change the selected order of ballot options according to predetermined ordering schema for additional voting sessions (See figure 4, paragraphs 0019-0020, 0041, wherein the ballots are rotated using randomization);

the ballot rotation engine having means for performing ballot rotation by generating electronically reconfigured ballots on demand during the course of an election to implement the schema in a controlled manner facilitating substantial fairness through rotation over at least one level selected from the group consisting of a voting precinct, a group of precincts supported at a polling place, and an entire election jurisdiction (See paragraphs 0019-0021, 0041, 0044, wherein ballot rotation is performed automatically by the system to ensure substantial fairness to all candidates across voting precincts and groups of voting precincts). However, Openshaw II et al. does not expressly disclose ballot images or substantially equal statistic fairness in rotation.

Miller et al. discloses ballot rotation in precincts using electronic voting systems, where ballot images are produced, and wherein the rotation produces substantially equal statistical fairness (See page 291-292, 295, 297 and 298-9, which discusses electronic voting systems and producing ballots in rotating name order to decrease bias towards certain candidates and create substantially equal statistical fairness. See page 324, which discloses rotating names on the ballot so each name appears first equally often. See also pages 300-304, which discloses statistical results).

Both Openshaw II, et al. and Miller et al. discuss changing the order of candidate names in ballots in order to ensure fairness. Openshaw II et al. specifically discloses the use of pre-approved, electronic random ballots in order to avoid the need of secure voting booths as other voters would be unable to observe a user's selections. Further, Miller et al. discloses the importance in rotating names to ensure that the name listed first on the ballot does not receive an unfair bias. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider the statistic fairness of rotation in order to increase the fairness of an election by ensuring that all candidates' names receive equal consideration. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to use ballot images in the system of Openshaw II et al. in order to increase the usability of the system by those voters who are hearing impaired. See paragraph, 0050 of Openshaw, II et al. that discloses the use of the system by the hearing impaired.

As per claim 2, Openshaw, II et al. teaches a network including a precinct control and a plurality of voting stations (See figures 2 and 4, paragraphs 0044-8, 0051, 0063, 0068, 0072, wherein the system has a control and has a plurality of voting terminals).

As pre claim 3, Openshaw, II et al. discloses wherein the precinct control unit is configured to access the memory storage device to obtain the ballot information and process the same to implement the ordering schema along the plurality of voting stations (See figures 2 and 4, paragraphs 0044-8, 0051, 0063, 0068, 0072, wherein the system has a control and has a plurality of voting terminals. See paragraphs 0019-0021, wherein the plurality of voting stations receive random rotated ballots read from computer memory).

As per claim 4, Openshaw, II et al. teaches wherein the ordering schema is implemented through program instructions to the precinct control unit for balancing the selected order of ballot options amongst the plurality of voting stations so as not to favor any one of the plurality of ballot options at a precinct level during the course of an election (See figures 2 and 4, paragraphs 0044-8, 0051, 0063, 0068, 0072, wherein the system has a control and has a plurality of voting terminals. See paragraphs 0019-0021 and 0041, wherein the randomized ballots are matched to the stations in order to allow fairness in the vote).

As per claim 5, Openshaw, II et al. discloses wherein the ballot information includes a plurality of contests each with associated ballot options, and the ballot rotation engine is operable to change the selected order of the associated ballot options among the plurality of contests (See figure 4, paragraphs 0019-20, 0033-6, 0041, wherein ballot information is stored by the system, including a plurality of valid, random ballot options).

As per claim 6, Openshaw, II et al. teaches wherein the ballot information includes a plurality of contests with associated ballot options and the ballot rotation engine is operable to change the selected order of corresponding ballot options among selected ones of the plurality of

contests (See figure 4, paragraphs 0019-20, 0033-6, 0041, wherein the ordering of the ballot changes amongst the contestants).

As per claim 7, Openshaw, II et al. discloses including a plurality of predetermined ordering schema for use in the ballot rotation engine, each of the contests being identified to a selected one of the of the plurality of predetermined ordering schema (See figure 4, paragraphs 0019-20, 0033-6, 0041, wherein ordering schema are used, each of ballots including identified contestants in a radom ordering).

As per claim 8, Openshaw, II et al. discloses wherein the contest comprises a race for elective officials (See paragraphs 0017, 0021-3, 0026, 0028, 0034, 0041, wherein the voting system is for use in elections, such as presidential elections).

As per claim 9, Openshaw, II, et al. discloses a plurality of ballot options in association with a contest (See figure 4, paragraphs 0019-20, 0033-6, 0041, wherein ballot information is stored by the system, including a plurality of valid, random ballot options). However, Openshaw et al. does not expressly disclose, nor does Miller et al., that the contest comprises a referendum for proposed new legislation.

Openshaw, II et al. and Miller et al. disclose electronically implemented voting system that allow for precinct level control in elections. It is old and well known that ballots include questions concerning referendums for proposed legislation on which a voter votes, such as questions on how tax dollars should be allocated. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include questions regarding referendums for proposed new legislation in the ballots of Openshaw, II et al. and Miller et al. in order to

increase the reliability, speed, and accuracy of the election process by providing control over the administration of the current voting system. See paragraph 0008 of Openshaw, II et al.

As per claim 10, Openshaw, II et al. teaches an electronically configurable ballot information presentation device operable for presenting the ballot and comprising a personal computer (See figure 4, paragraphs 0019, 0033-6, 0051). However, neither Openshaw, II et al. or Miller et al. disclose a visual display.

Both Openshaw, II et al. and Miller et al. disclose electronically implemented voting systems that allow for precinct level control in elections. Openshaw II, et al. specifically discloses the use of a personal computer in the voting stations. Miller et al. discloses a visual list of candidates in a ballot. Since it is common for PCs to have visual displays, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a visual display in the personal computer of Openshaw, II et al. in order to increase the reliability and accuracy of the election process by increasing comprehension of the choices on the ballot by allowing the voter to both see and hear the choices. See paragraphs 0008, 0075 of Openshaw, II et al.

As per claim 11, Openshaw, II et al. discloses wherein the electronically configurable ballot information presentation device comprises an audio speaker (See figure 1, paragraph 0018, 0020, which discloses an audio ballot).

As per claim 12, Openshaw, II et al. teaches wherein the electronically configurable ballot information presentation device comprises Braille compatibility (See paragraph 0018, which discusses Braille). Openshaw, II et al. further discloses bypassing the system and using a paper ballot when needed (See paragraph 0050). However, Openshaw, II et al. does not expressly disclose, nor does Miller et al., the use of a Braille printer.

Openshaw II et al. discloses an electronically implemented voting system that also employs Braille and printed ballots for the blind and hard of hearing. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a Braille printer in the system of Openshaw II et al. in order to increase the usability of the system by those voters who are hearing impaired. See paragraph, 0050 of Openshaw, II et al. that discloses the use of the system by the hearing impaired.

As per claim 13, Openshaw, II et al. teaches wherein the voter input device comprises a manually actuatable switch (See paragraph 0063, which discloses a key pad).

As per claim 14, Openshaw, II et al. teaches wherein the voter input device comprises a voter-directed ballot navigation tool (See paragraphs 0016-7, 0019, 0022, 0042, 0049, wherein the voter completes the ballot using tools of the system).

As per claim 15, Openshaw, II et al. discloses wherein the predetermined ordering schema of the ballot rotation engine comprises program instructions for randomization of the selected order of ballot options between successive iterations (See paragraphs 0019-0020 and 0041, wherein the ordering is randomized between successive voters).

As per claims 16-18, Openshaw, II et al. discloses predetermined ordering schema of the ballot rotation (See paragraphs 0019-0020 and 0041). However, Openshaw, II et al. does not expressly disclose sequential rotation of the ballot options, uprotation of adjacent ballot options, or downrotation of adjacent ballot options.

Miller et al. discloses sequential rotation of the ballot options, uprotation of adjacent ballot options, or downrotation of adjacent ballot options (See pages 324-325, wherein the ballot options are sequentially rotated, rotated up wards, or rotated downwards through alphabetically

ordering, reverse alphabetical ordering, and then the moving the first candidate in each instance to the end of the list).

Both Openshaw II, et al. and Miller et al. discuss changing the order of candidate names in ballots in order to ensure fairness. Openshaw II et al. specifically discloses the use of pre-approved, electronic random ballots in order to avoid the need of secure voting booths as other voters would be unable to observe a user's selections. Further, Miller et al. discloses the importance in rotating names to ensure that the name listed first on the ballot does not receive an unfair bias. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider the statistic fairness of rotation in order to increase the fairness of an election by ensuring that all candidates' names receive equal consideration.

As per claim 19, Openshaw, II et al. teaches wherein the predetermined ordering schema of the ballot rotation engine comprises program instructions for implementing a system of rotation at a precinct level (See figure 4, paragraphs 0019-20 and 0041, wherein the ballots are rotated at a precinct level).

As per claim 20, Openshaw, II et al. teaches wherein the predetermined ordering schema of the ballot rotation engine comprises program instructions for implementing a system of rotation at an election jurisdiction level (See figure 4, paragraphs 0019-20 and 0041, wherein the ballots are rotated at an election jurisdiction level).

As per claims 21-23, Openshaw, II et al. discloses predetermined ordering schema of the ballot rotation (See paragraphs 0019-0020 and 0041). However, Openshaw, II et al. does not expressly disclose that the predetermined ordering schema implements a system of rotation that (i) provides a number of rotation instances for each candidate in a first position of the selected

order such that predominance of any one candidate at the top of the selected order is statistically insignificant in influencing an election outcome, (ii) provides, as close as is mathematically possible, an equal number of rotation instances for each candidate at all positions of the selected order, or (iii) implements a lookup table for changing the selected order of the additional voting sessions.

Miller et al. discloses (i) provides a number of rotation instances for each candidate in a first position of the selected order such that predominance of any one candidate at the top of the selected order is statistically insignificant in influencing an election outcome (See pages 298-299 and 324-326, which disclose rotation instances for each candidate in a first position. See also pages 300-304, which discloses statistical results), (ii) provides, as close as is mathematically possible, an equal number of rotation instances for each candidate at all positions of the selected order (See pages 298-299 and 324-326, which disclose rotation instances that assign candidate to each position in the list by precinct, thus trying to normalize the ordering), or (iii) implements a lookup table for changing the selected order of the additional voting sessions (See pages 298-299 and 324-326, wherein the orderings are prescribed by a set methodology).

Both Openshaw II, et al. and Miller et al. discuss changing the order of candidate names in ballots in order to ensure fairness. Openshaw II et al. specifically discloses the use of pre-approved, electronic random ballots in order to avoid the need of secure voting booths as other voters would be unable to observe a user's selections. Further, Miller et al. discloses the importance in rotating names to ensure that the name listed first on the ballot does not receive an unfair bias. Therefore, it would have been obvious to one of ordinary skill in the art at the time

of the invention to consider the statistic fairness of rotation in order to increase the fairness of an election by ensuring that all candidates' names receive equal consideration.

Claim 24 recites substantially similar limitations to claim 1 and is therefore rejected using the same art and rationale set forth above.

As per claim 25, Openshaw, II et al. teaches a precinct control unit and a plurality of voting stations networked to a precinct control unit, and the step of iterating is performed at a precinct control unit (See figures 2 and 4, paragraphs 0044-8, 0051, 0063, 0068, 0072).

Claims 26-30 recite substantially similar limitations to claims 3-7, respectively, and are therefore rejected using the same art and rationale set forth above.

Claims 31-33 recite substantially similar limitations to claims 10-12, respectively, and are therefore rejected using the same art and rationale set forth above.

Claims 34-42 recite substantially similar limitations to claims 14-22, respectively, and are therefore rejected using the same art and rationale set forth above.

Claim 43 recites substantially similar limitations to claim 1 and is therefore rejected using the same art and rationale set forth above.

As per claim 44, Openshaw II et al. discloses wherein the ballot rotation engine is configured to implement substantially equal statistical fairness of ballot rotation at the precinct level (See paragraphs 0019-0021, 0041, 0044, wherein ballot rotation is performed automatically by the system to ensure substantial fairness to all candidates across voting precincts and groups of voting precincts). However, Openshaw II et al. does not expressly disclose substantially equal statistic fairness in rotation.

Miller et al. discloses ballot rotation in precincts using electronic voting systems, where the rotation produces substantially equal statistical fairness (See page 291-292, 295, 297 and 298-9, which discusses electronic voting systems and producing ballots in rotating name order to decrease bias towards certain candidates and create substantially equal statistical fairness. See page 324, which discloses rotating names on the ballot so each name appears first equally often. See also pages 300-304, which discloses statistical results).

Both Openshaw II, et al. and Miller et al. discuss changing the order of candidate names in ballots in order to ensure fairness. Openshaw II et al. specifically discloses the use of pre-approved, electronic random ballots in order to avoid the need of secure voting booths as other voters would be unable to observe a user's selections. Further, Miller et al. discloses the importance in rotating names to ensure that the name listed first on the ballot does not receive an unfair bias. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider the statistic fairness of rotation in order to increase the fairness of an election by ensuring that all candidates' names receive equal consideration.

Claims 45 and 46 recite substantially similar limitations to claim 44 and are therefore rejected using the same art and rationale set forth above.

Response to Arguments

6. Applicant's arguments with regards to Openshaw, II et al. (U.S. 2002/0107724) in view of Miller et al. ("The Impact of Candidate name order on Election Outcomes") have been fully considered, but they are not persuasive. In the remarks, Applicant argues that (1) in Openshaw, II et al. the randomization occurs only for telephone ballots that are added in response to increased numbers of voters, not for the precinct as a whole, and thus does not achieve statistical

fairness based on the randomization, (2) Miller merely confirms whether voting results reflect a statistical incidence of name-order affects and does not teach or suggest that the ballot rotation is performed on demand by the election devices, and (3) Miller does not teach rotation of a ballot to ensure that each candidate is first an equal number of times.

In response to argument (1), Examiner respectfully disagrees. Openshaw, II et al. discloses that voters go to their assigned polling places on Election Day and, after the voters are verified, the voters go into a voting booth/station that uses a telephone system. See paragraphs 0017-9. The ballot is randomized, as discussed in paragraphs 0019-20, 0041. Each voting booth/station does contain a telephone, with all the voting booths/stations being connected back to a PC in the precinct. Therefore, all the booths/stations receive the randomized ballot. After the precinct securely receives and tallies the ballots, the information from the precinct is forwarded to the Lt. Governor's office, and certified on a county level. See paragraphs 0044-7. Therefore, the system disclosed by Openshaw, II et al. discloses that all ballots are voted on using telephone systems. Further, Examiner did not rely upon Openshaw, II et al. to disclose achieving statistical fairness based on the randomization, but rather Miller et al. Therefore, Examiner respectfully disagrees with the first argument of the applicant.

In response to argument (2), Examiner respectfully disagrees. Examiner points out that Miller was relied upon as a secondary reference to teach rotation that produces substantially equal statistical fairness. Examiner further pointed out that Miller discloses ballot rotation occurring in precincts using electronic voting systems, which it specifically does on pages 291-292, 295, 297 and 298-9, which discusses electronic voting systems and producing ballots in rotating name order to decrease bias towards certain candidates and create substantially equal

statistical fairness. See also page 324, which discloses rotating names on the ballot so each name appears first equally often. See also pages 300-304, which discloses statistical results. Examiner did not rely on Miller to disclose the specific voting system claimed by the Applicant or that the ballot is changed on demand (she relied on Openshaw, II et al. for this system arrangement). Rather, she was relying on Miller to disclose why a ballot would be rotated. Thus, Examiner respectfully disagrees with this argument.

In response to argument (3), Examiner respectfully disagrees. Miller expressly states that a series of different name orders were developed, beginning with an alphabetical ordering of the candidates. Each additional name order was created by moving the first-listed candidate to the end of the list until each candidate had been listed first in one and only one order. The number of name orders created therefore equaled the number of candidates in the race. See pages 298-299 and 324-326. Therefore, Examiner is not clear how Miller does not teach and suggest rotation of a ballot to ensure that each candidate is first an equal number of times.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

bvd
August 30, 2006

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